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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/731,097 | 12/10/2003 | Bily Wang | MR2349-975 | 4504 |

4586 7590 04/04/2005

ROSENBERG, KLEIN & LEE
3458 ELLICOTT CENTER DRIVE-SUITE 101
ELLICOTT CITY, MD 21043

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| EXAMINER |
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HAN, JASON

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| ART UNIT | PAPER NUMBER |
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2875

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/731,097

Applicant(s)

WANG ET AL.

Examiner

Jason M. Han

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because in line 6 "Led" should read as "LED". Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 8 is objected to because of the following informalities: Grammatical error in line 2 of the claim – "receive". Appropriate correction is required.

The following claims have been rejected in light of the specification, but rendered the broadest interpretation as construed by the examiner [MPEP 2111].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lebens et al. (U.S. Patent 6305818) in view of applicant's admitted prior art (AAPA).
4. With regards to Claim 1, Lebens teaches an LED light structure including:
 - A predetermined number of red, blue, and green LED chips [Figures 1-2: (150); Column 9, Lines 54-57] being electrically connected to a controlling integral circuit chip [Figure 1: (130) & Figure 3: (331); Column 10, Lines 19-

21], all of which are disposed within a packaging material of a certain shape [Figure 1: (110)].

Lebens does not specifically teach the above-incorporated elements placed onto a single electrical circuit substrate within the packaging material.

Applicant's admitted prior art teaches, "The electrical circuit substrate 4 can use the conventional LED substrate for convenience [Column 4, Lines 11-13]."

It would have been obvious to one ordinarily skilled in the art at the time the invention was made to modify the LED light structure of Lebens to incorporate all the electrical components onto a single substrate, as taught by applicant's admitted prior art, in order to conserve space and simplify manufacturing. Such a configuration or substrates [i.e., circuit boards] are commonly known within the art. Lebens corroborates this single substrate principle, "For optimal results, transistors 754 and 755 are formed as [[s]] a single integrated three-terminal device on a single substrate, in order to achieve matched betas and temperature dependence [Column 13, Lines 8-11]."

5. With regard to Claim 2, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches the controlling integral circuit chip [Figure 1: (130) & Figure 3: (331)] having about 5 to 9 electrical connection nodes.

6. With regards to Claim 3, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches the controlling integral circuit chip [Figure 1: (130)] having about 7 electrical connection nodes.

7. With regards to Claim 4, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches a LED light source structure having a

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package [Figure 5: (510)] with about 2 to 8 electrical connection locations [Figure 5: (120, 130, 160, 570)].

8. With regards to Claim 5, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches a LED light source structure having a package [Figure 5: (510)] with about 4 electrical connection locations [Figure 5: (120, 130, 160, 570)].

9. With regards to Claim 6, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches 4 electrical connection locations including a power actuation location [Figure 5: (120)], a control signal location [Figure 5: (130)], a grounding location [Figure 5: adjacent (570)], and a function reserving location [Figure 5: (160)].

10. With regards to Claim 7, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches, "In one such embodiment, LEDs of each color are controlled separately in order to provide the desired overall hue or whiteness of the combined light output. In one embodiment, surface-mounted LEDs are used [Column 9, Lines 57-60]." It is also obvious and commonly known within the art to have LEDs utilizing surface-mounted technology for installing onto a printed circuit board (note references cited below).

11. With regards to Claim 8, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches a controlling integral circuit chip [Figure 5: (530); Figure 3: (331); Column 10, Lines 19-21] receiving a control signal from the

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control signal location [Figure 5: (530)] to modulate the color temperature of the LEDs [Column 11, Lines 54-57; see also Figure 1].

12. With regards to Claim 9, Lebens in view of AAPA discloses the claimed invention as cited above. In addition, Lebens teaches, "In other embodiments, feedback circuit 160, instead of or in addition to input from the video signal, takes feedback input 165 from a photosensor in order to control LED light output [Column 11, Lines 57-60]."

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art pertinent to the current application, but are not considered exhaustive:

US Publication 2001/0022661 to Fujimoto et al;

US Patent 6297598 to Wang et al;

US Patent 6299337 to Bachl et al;

US Patent 6307479 to Wang;

US Publication 2002/0021573 to Zhang;

US Patent 6534799 to Wang et al;

US Patent 6583447 to Wang et al;

US Publication 2004/0004835 to Tsai;

US Patent 6696784 to Yoshida et al;

US Patent 6787999 to Stimac et al;

US Patent 6788011 to Mueller et al;

US Publication 2005/0012457 to Wu.

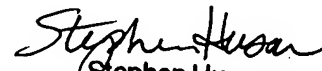
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Han whose telephone number is (571) 272-2207. The examiner can normally be reached on 8:00am-5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMH (3/28/2005)


Stephen Husar
Primary Examiner